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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,237	04/24/2000	Chae-Man Lim	678-475 (P9174)	8647

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DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553

EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/558,237

Applicant(s)

LIM, CHAE-MAN

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed March 23, 2005, have been fully considered but they are not persuasive.

1. In remarks of November 2004, Applicant argued that Ostberg must receive a BCCH channel as evidence that the P-SCH and S-SCH were unnecessary, thus preventing Ostberg from anticipating the limitations of at least claim 1. However, Ostberg recognizes the need to avoid using information in the BCCH and instead use information of the P-SCH and S-SCH to identify base station sectors (col. 4, lines 1-11; col. 6, lines 10-13; col. 9, lines 9-11). Thus, the purpose of the invention of Ostberg is to perform a cell search without receiving the BCCH.

2. Applicant argued that correlation and detection of the cell search is not performed in two steps in Ostberg. However, correlation and detection operations are performed in two separate steps as shown (fig. 4, step 420 and step 440; note: although four steps are shown in the process of fig. 4, two of those steps are 420 - detecting and 440 - correlating). Furthermore, applicant has not limited the number of actions that may be performed in one step. A step of Ostberg can be considered to perform all of the actions of fig. 4 (i.e., fig. 4 could be considered a 1-step process of sector identification and synchronization (col. 5, lines 20-22) having several actions performed physically, logically or computationally).

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ostberg et al. (US 6,504,830).

3. Regarding claims 1, 3, 5, 7, 9 and 14, Ostberg discloses a signal transmitting apparatus (fig. 1A, item 120; abstract, lines 1-4) and receiving apparatus (fig. 1A, item 130). The apparatus has an inherent primary synchronization channel transmitter (fig. 2B, PSC in Perch 1) for placing synchronization information in several slots and an inherent secondary synchronization channel transmitter (fig. 2B, SSC in Perch 2) for having a group specific code at the beginning of each slot (col. 5, lines 44-46; col. 6, lines 63-67; col. 7, lines 1-20) with a specific code (fig. 4, items 420-440) which represents one base station in the group. Correlation and detection operations for a cell search are performed in two separate steps (fig. 4, step 420 and step 440). Mobile stations perform the cell search without receiving the BCCH (col. 4, lines 1-11; col. 6, lines 10-13; col. 9, lines 9-11).

4. Regarding claims 2, 4, 6 and 8, the apparatus has a broadcast channel (fig. 3A) that is mapped to the SSC (abstract, lines 6-7; col. 6, lines 22-25 and 30-35).

5. Regarding claims 10, 12, 15 and 17, a group specific code detecting unit comprises a correlator for calculating the correlation in each slot (col. 7, lines 46-62) and a base station group detector for determining a base station group using specific codes corresponding to a maxima of correlations detected (col. 7, lines 14-20).

6. Regarding claims 11 and 16, the group detector comprises an inherent shift operator for comparing correlations to an inherent comma free code table (col. 8, lines 15-24) and a maximum correlation detector for detecting a synchronization code corresponding to a maximum cyclic shifted correlation (col. 7, lines 14-20).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 13 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Ostberg et al., as applied to claim 12 or 17 above, in further view of Nystrom et al. (US 6,526,091).

7. Regarding claims 13 and 18, Ostberg discloses using Gold sequences (col. 3, lines 46-49) and does not disclose correlating Hadamard sequences by a Hadamard transformation. Nystrom discloses using a Hadamard sequence instead of a Gold sequence in a multi-user system (col. 10, lines 1-3 and 25-29). Therefore, it would have been obvious to one skilled the art at the time the invention was made to correlate a Hadamard sequence in the invention of Ostberg in order to use a less complex transformation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

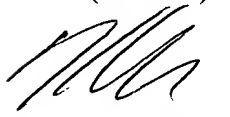
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

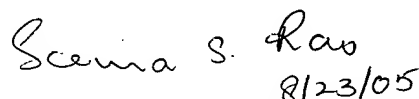
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

August 22, 2005


SEEMA S. RAO
8/23/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600